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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,893

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Charles Marvin Berteau

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ALCATEL LUCENT
INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

SIVJI, NIZAR N

ART UNIT

PAPER NUMBER

4172

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,893	Applicant(s) BERTEAU ET AL.	
	Examiner NIZAR SIVJI	Art Unit 4172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/12/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claim

1. Claim 1 – 20 are currently pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claim 1 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer Patent No. 5978677 and further in view of Houde et al. 5978678.

As Per Claim 1. Sawyer teaches a method for routing calls in a distributed mobile switching center environment, the method comprising:

receiving a call (e.g. incoming call) at a first node in a telecommunication network (e.g. switch), the first node associated

with a plurality of trunks (i.e., Fig 1 the switching nodes 12 are interconnected with each

Art Unit: 4172

other for communication via trunks 18 Col 3 L 5 – 10);

identifying a constraint (i.e., location) relating to selection of a circuit associated with one of the plurality of trunks associated with the first node for routing the call (i.e., the data base 20 stores information concerning the mobile stations 14 comprising location information and service information. Each switching node 12 is further connected to at least one associated base station controller (BSC) 24 via both a signaling link 26 and a trunk 28. The trunk 28 provides a voice and data communications path used to carry subscriber communications between the first switching node 12(1) and its base station controller 24(1), and between the second switching node 12(2) and its base station controller 24(2) Col 3 L 20 – 35); and

routing the call to a trunk (e.g., location directory number) in accordance with the constraint (i.e., The incoming call is then delivered (through connected) 112 over the voice trunk 18 using the routing number to the serving switching node Col 4 L 28 – L30).

Sawyer does not teach in detail identifying a constraint relating to selection of a circuit associated with the trunk.

However, the preceding limitation is known in the art of communications. Houde teaches that a call 200 dialed to the home directory number of the internationally roaming mobile station 16(1) originates from another cellular subscriber or the public switched telephone network (PSTN) and is received at one of the switching nodes 14 (i.e., gateway node) of the first country cellular network 12(e.g., Canada or France). The home location register 22 processes (action 204) the location request signal, in view of the previously received registration notification signal 104, to determine the location

Art Unit: 4172

(e.g., constraint) (i.e., serving switching node 34 within the second country cellular network 32) of the called mobile station 16(1). The home location register 22 then signals the serving switching node 34 for the called mobile station 16(1) (over signaling links 18 and 24, through international gateway 50, and over signaling link 40) with a routing request signal 206 to route the call. This routing request signal may comprise an IS-41 ROUTERREQ signal or other equivalent standardized or proprietary message. Responsive to the signal 206, the serving switching node 34 assigns (action 208) a temporary local directory number (TLDN) to the international roaming mobile station 16(1), and sends a routing request return result signal 210 including the assigned temporary local directory number to the home location register 22 via the international gateway 50. From processing of the previously stored switching node identification for switching node 34, the home location register identifies the country where that node (34) is located and retrieves (action 212) its country code (CC) designation. The country code and returned temporary local directory number are then appended to the proper international dialing access digits (IDAD) to form (action 214) the international number for contacting the called international roaming mobile station 16(1). It will be noted that if the returned temporary local directory number does not include a city code, this may also be determined from processing the switching node identification number and then appended by action 214 at the proper location to complete the international number. It will further be noted that the subscriber owning the international roaming mobile station 16(1) may further have a long distance carrier preference, and in such instances the carrier code for that preferred carrier is also appended by action 214 at the proper

Art Unit: 4172

location to complete the international number. (Col 5 L5 - L53). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that call can be route by identifying a constraint relating to selection of a circuit associated. Thus, designate the particular call to be routed based on pre-set preferences.

As Per Claim 2. Sawyer and Houde teaches the method of claim 1 as discussed above. Houde further teaches wherein the first node comprises one of a plurality of nodes (e.g., switches) operable to handle bearer traffic, each of the plurality of nodes operating under control of a server (register and/or gateway) using signaling traffic associated with the bearer traffic (Col 4 L 3 – 6).

As Per Claim 3. Sawyer and Houde teaches the method of claim 2 as discussed above. Houde further teaches wherein the constraint relates to one of a preference or a restriction against routing the call through an interconnection with another of the plurality of nodes(i.e., first country cellular network 12 subscriber travels to the second country and wishes to use his or her mobile station 16(1) in the second country cellular network 32. Historically, this required the subscriber to manually register in the second country cellular network 32 Col 4 L 14 - 20).

As Per Claim 4. Sawyer and Houde teaches the method of claim 3 as discussed above. Houde further teaches wherein the constraint is defined in a set of routing rules based on data relating to the call(i.e., routing rules based on data relating to the call Col 6 L 5 – 53).

As Per Claim 5. Sawyer and Houde teaches the method of claim 3 as discussed above. Houde further teaches wherein the server controls routing of the call to a

Art Unit: 4172

trunk(i.e., serving switching node 34 to route the call Col 6 L 20 - 30).

As Per Claim 6. Sawyer and Houde teaches the method of claim 3 as discussed

above. Houde further teaches wherein the preference comprises:

selecting a circuit associated with the first node for routing the call if a circuit associated with the first node is available (i.e., switching node identification Col 6 L 20 - 35); and allowing use of a circuit associated with a particular other one of the plurality of nodes through an interconnection with the particular one of the plurality of nodes if a circuit associated with the first node is not available (i.e., the returned temporary local directory number does not include the city code, the stored switching node identification is then further processed to identify the city code (City) in France for the switching node 34, and that code is added to the formed international number (011-33-City-TLDN) Col 6 L 36 – 45).

As Per Claim 7. Sawyer and Houde teaches the method of claim 3 wherein the restriction comprises precluding selection of a circuit associated with one of the plurality of nodes other than the first node(i.e., switching node identification to identify the first available node Col 6 L 20 - 35).

As Per Claim 8. Sawyer and Houde teaches the method of claim 2 as discussed above. Houde teaches further wherein each of the plurality of trunks is associated with a plurality of circuits and each node is associated with at least one circuit for each trunk(i.e., Col 2 L 20 – 55, Col 6 L 5 – 53).

As Per Claim 9. Sawyer and Houde teaches the method of claim 2 as discussed above. Houde teaches further wherein at least two of the nodes serve an overlapping

Art Unit: 4172

geographical area(e.g., Fig 1 Plurality of the switching node serving Col 3 L 10 – 15).

As Per Claim 10. Sawyer and Houde teaches the method of claim 2 as discussed above. Houde teaches further wherein at least two of the nodes serve different geographical areas(e.g., Fig 1 Plurality of the switching node serving Col 3 L 10 – 15).

As Per Claim 11. Sawyer teaches a telecommunications system comprising:

a distributed mobile switching center including:

a plurality of media gateways, each media gateway associated with a plurality of trunks(i.e., A call 100 dialed to the directory number (B-number) of mobile station 14(1) originates from another cellular subscriber or the public switched telephone network (PSTN) and is received at the first (originating or gateway) switching node 12(1) Col 3 L 60 – 64); and

a server operable to control routing for the plurality of media gateways based on a constraint (i.e., location) associated with each media gateway(i.e., The incoming call is then delivered (through connected) 112 over the voice trunk18 using the routing number to the serving switching node Col 4 L 28 – L30).

Sawyer does not teach in detail the constraint relating to selecting a circuit associated with a terminating trunk for a call based on at least the media gateway receiving the call.

However, the preceding limitation is known in the art of communications. Houde teaches that a call 200 dialed to the home directory number of the internationally roaming mobile station 16(1) originates from another cellular subscriber or the public switched telephone network (PSTN) and is received at one of the switching nodes 14

Art Unit: 4172

(i.e., gateway node) of the first country cellular network 12(e.g., Canada or France). The home location register 22 processes (action 204) the location request signal, in view of the previously received registration notification signal 104, to determine the location (e.g., constraint) (i.e., serving switching node 34 within the second country cellular network 32) of the called mobile station 16(1). The home location register 22 then signals the serving switching node 34 for the called mobile station 16(1) (over signaling links 18 and 24, through international gateway 50, and over signaling link 40) with a routing request signal 206 to route the call. This routing request signal may comprise an IS-41 ROUTERREQ signal or other equivalent standardized or proprietary message. Responsive to the signal 206, the serving switching node 34 assigns (action 208) a temporary local directory number (TLDN) to the international roaming mobile station 16(1), and sends a routing request return result signal 210 including the assigned temporary local directory number to the home location register 22 via the international gateway 50. From processing of the previously stored switching node identification for switching node 34, the home location register identifies the country where that node (34) is located and retrieves (action 212) its country code (CC) designation. The country code and returned temporary local directory number are then appended to the proper international dialing access digits (IDAD) to form (action 214) the international number for contacting the called international roaming mobile station 16(1). It will be noted that if the returned temporary local directory number does not include a city code, this may also be determined from processing the switching node identification number and then appended by action 214 at the proper location to complete the international number. It

Art Unit: 4172

will further be noted that the subscriber owning the international roaming mobile station 16(1) may further have a long distance carrier preference, and in such instances the carrier code for that preferred carrier is also appended by action 214 at the proper location to complete the international number. (Col 5 L5 - L53). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the constraint relating to selecting a circuit associated with a terminating trunk for a call based on at least the media gateway receiving the call. Thus, designate the particular call to be routed based on pre-set preferences.

As Per Claim 12. Sawyer and Houde teaches the telecommunications system of claim 11 as discussed above. Houde teaches further wherein the plurality of media gateways comprise a cluster of media gateways having interconnection between media gateways in the cluster and the constraint providing at least one of a preference or a restriction against routing the call through the interconnection (i.e., first country cellular network 12 subscriber travels to the second country and wishes to use his or her mobile station 16(1) in the second country cellular network 32. Historically, this required the subscriber to manually register in the second country cellular network 32 Col 4 L 14 - 20).

As Per Claim 13. Sawyer and Houde teaches the telecommunications system of claim 12 as discussed above. Houde teaches further wherein each of the plurality of trunks is associated with a plurality of circuits and each media gateway in the cluster is associated with at least one of the circuits for each of the plurality of trunks (i.e., Col 2 L 20 - 55, Col 6 L 5 - 53).

As Per Claim 14. Sawyer and Houde teaches the telecommunications system of claim

Art Unit: 4172

13 as discussed above. Houde teaches further wherein the call is associated with a particular circuit associated with an originating trunk and the media gateway receiving the call is associated with the particular circuit (i.e., call is received at a gateway switching node 14 of the Canadian cellular network 12 dialed to the home directory number of mobile station 16(1). The home location register 22 is interrogated with the location request signal 202, which is processed to determine mobile station location associated with serving switching node 34 in the French cellular network 32 Col 6 L 18 – 24).

As Per Claim 15. Sawyer and Houde teaches the telecommunications system of claim 12 as discussed above. Houde teaches further wherein the restriction comprises precluding selecting a circuit associated with one of the plurality of media gateways other than the media gateway receiving the call and the preference comprises: selecting a circuit associated with the media gateway receiving the call if a circuit associated with the media gateway receiving the call is available(i.e., switching node identification to identify the first available node Col 6 L 20 - 35); and allowing use of a circuit associated with a particular other one of the plurality of media gateways through an interconnection with the particular media gateway if a circuit associated with the media gateway receiving the call is not available(i.e., the returned temporary local directory number does not include the city code, the stored switching node identification is then further processed to identify the city code (City) in France for the switching node 34, and that code is added to the formed international number (011-33-City-TLDN) Col 6 L 36 – 45).

Art Unit: 4172

As Per Claim 16. Sawyer and Houde teaches the telecommunications system of claim 11 as discussed above. Houde further teaches wherein the server handles signaling traffic for the distributed mobile switching center and the plurality of media gateways handle bearer traffic for the distributed mobile switching center (Col 4 L 3 – 6).

As Per Claim 17. Sawyer teaches an article comprising a machine-readable medium storing instructions for causing data processing apparatus to:

receive data indicating receipt of a call (e.g. incoming call) at a first node of a plurality of nodes in a

telecommunication network (e.g. switch), the first node associated with a plurality of trunk (i.e., A call 100 dialed to the directory number (B-number) of mobile station 14(1) originates from another cellular subscriber or the public switched telephone network (PSTN) and is received at the first (originating or gateway) switching node 12(1) Col 3 L 60 – 64),

identify a constraint (i.e., location) relating selecting a circuit associated with one of the plurality of trunks associated with the first node for routing the call (i.e., the data base 20 signals the serving switching node 12(2) for the called mobile station 14(1) over signaling link 22 with a routing request (provide roaming) message 104 to prepare for the call Col 4 L4 – L7); and

control routing of the call to a trunk (e.g., location directory number) in accordance with the constraint (i.e., The incoming call is then delivered (through connected) 112 over the voice trunk 18 using the routing number to the serving switching node Col 4 L 28 – L30).

Sawyer does not teach in detail wherein the call received on an originating trunk

Art Unit: 4172

of the plurality of trunks, and the plurality of nodes providing switching operations under the control of a call server.

However, the preceding limitation is known in the art of communications. Houde teaches the cellular network 12 portion of the international network 10 includes a plurality of interconnected switching nodes (SN) 14 under the control of the switching device (Col 3 L 10 – 55). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the call received on an originating trunk of the plurality of trunks, and the plurality of nodes providing switching operations under the control of a call server. Thus, the call can be routed from one network to another network without any interruption.

As Per Claim 18. Sawyer and Houde teaches the article of claim 17 as discussed above. Houde further teaches wherein the constraint comprises a limitation on routing the call through an interconnection with another of the plurality of nodes.

As Per Claim 19. Sawyer and Houde teaches the article of claim 17 as discussed above. Sawyer further teaches wherein the constraint is included in a set of routing rules assigned to the call and the constraint is associated with the first node (i.e., the data base 20 signals the serving switching node 12(2) for the called mobile station 14(1) over signaling link 22 with a routing request (provide roaming) message 104 to prepare for the call Col 4 L4 – L7).

As Per Claim 20. Sawyer and Houde teaches the article of claim 17 as discussed above. Houde further teaches wherein each of the plurality of trunks is associated with a plurality of circuits, and each node is associated with at least one circuit for each trunk

Art Unit: 4172

(i.e., cellular mobile station registers with a switching node of the serving foreign cellular system Col 2 L 20 – 55, Col 6 L 5 – 53).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIZAR SIVJI whose telephone number is (571)270-7462. The examiner can normally be reached on Mon - Fri 8:00AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis West can be reached on 5712727859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NIZAR SIVJI/
Examiner, Art Unit 4172
/Jean A Gelin/

Application/Control Number: 10/599,893

Page 14

Art Unit: 4172

Primary Examiner, Art Unit 2617

February 10, 2009